



FIG. 1A

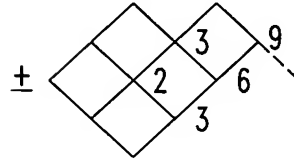


FIG. 1B

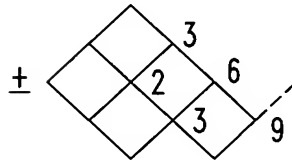


FIG. 2

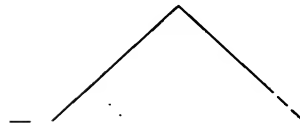


FIG. 3

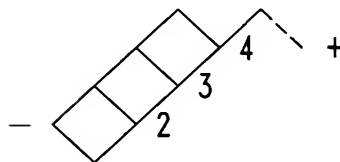


FIG. 4

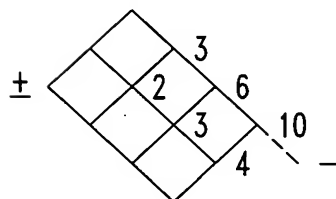




FIG. 5

NAME	ABCDE K	INVERTED BITS	PRIMARY abcdei	ALTERNATE abcdei	DR CLASS	DR	DB CLASS	DB
D0	00000 0	ADI	<u>100101</u>			±	C'D'E'K'	0
D1	10000 0	CI	<u>101001</u>			±	C'D'E'K'	0
D2 ²	01000 0	EI	<u>010011</u>			±	C'D'E'K'	0
D3	11000 0	I	<u>110001</u>			±	C'D'E'K'	0
D4	00100 0	BI	<u>011001</u>			±	ZB6	0
D5	10100 0		101000	010111	PDRS6	+		-
D6	01100 0		011000	100111	PDRS6	+		-
D7	11100 0		111000	000111	NDRS6	-	ZB6	0
D8	00010 0	BI	<u>010101</u>			±	XB6	0
D9	10010 0		100100	011011	PDRS6	+		-
D10	01010 0		010100	101011	PDRS6	+		-
D11	11010 0		110100			±	XB6	0
D12	00110 0		001100	110011	PDRS6	+		-
D13 ¹	10110 0		101100			±	XB6	0
D14 ¹	01110 0		011100			±	XB6	0
D15	11110 0	ABI	<u>001101</u>			±	ZB6	0
D16 ²	00001 0	AI	<u>100011</u>			±	XB6	0
D17	10001 0		100010	011101	PDRS6	+		-
D18	01001 0		010010	101101	PDRS6	+		-
D19	11001 0		110010			±	XB6	0
D20	00101 0		001010	110101	PDRS6	+		-
D21	10101 0		101010			±	XB6	0
D22	01101 0		011010			±	XB6	0
D/K23	11101 x		111010	000101	NDRS6	-		+
D24	00011 0		000110	111001	PDRS6	+		-
D25	10011 0		100110			±	YB6	0
D26	01011 0		010110			±	YB6	0
D/K27	11011 x		110110	001001	NDRS6	-		+
D28	00111 0		001110			±	YB6	0
D/K29	10111 x		101110	010001	NDRS6	-		+
D/K30	01111 x		011110	100001	NDRS6	-		+
D31	11111 0	ABDI	<u>001011</u>			±	YB6	0
K3	11000 1		110000	001111	PDRS6	+		-

1. S1 = 1 FOR PDFS6-C'D'E'(A≠B)
2. S2 = 1 FOR NDFS6-A'C'D'(B≠E)



FIG. 6

NAME	FGH K	CODING CLASS	PRIMARY fghj	ALTERNATE fghj	DR CLASS	DR	DB CLASS	DB
Dx.0	000 0	F·G·H', G·H'	<u>0101</u>			±	G·H'	0
K3.0	000 1	F·G·H', G·H'	<u>0101</u>	1010	K·(F·G)'	+	G·H'	0
Dx.1	100 0	G·H'	<u>1001</u>			±	G·H'	0
K3.1	100 1	G·H'	<u>1001</u>	0110	K·(F·G)'	+	G·H'	0
Dx/K3.2	010 x		0100	1011	F·(G≠H)	+		
Dx/K3.3	110 x		1100	0011	F·G	-	F·(G≠H)	0
Dx/K3.4	001 x		0010	1101	F·(G≠H)	+		
Dx.5	101 0		1010			±	F·(G≠H)	0
K3.5	101 1		1010	0101	K·(F·G)'	+	F·(G≠H)	0
Dx.6	011 0		0110			±	F·G·H	0
K3.6	011 1		0110	1001	K·(F·G)'	+	F·G·H	0
Dx/K3.P7	111 x		1110	0001	F·G	-		
Dx.A7 ¹	111 0	F·G·H·S	<u>0111</u>	1000	F·G	-		
Ky.A7 ²	111 1	F·G·H·Ky	<u>0111</u>	1000	F·G	-		

1. S1 = 1 FOR PDFS6·C·D·E'·(A≠B) + NDFS6·A'·C'·D'·(B≠E)

2. Ky IS RESTRICTED TO K23, K27, K29, K30 = K·E



FIG. 7

NAME	ABCDE FGH K	PRIMARY (6B) DR abcdei fghi DB	ALTERNATE DR abcdei fghi DB
K3.0	11000 000 1	+ 110000 1010 -	- 001111 0101 +
K3.1	11000 100 1	+ 110000 0110 -	- 001111 1001 +
K3.2	11000 010 1	+ 110000 1011 0	- 001111 0100 0
K3.3	11000 110 1	+ 110000 1100 -	- 001111 0011 +
K3.4	11000 001 1	+ 110000 1101 0	- 001111 0010 0
K3.5	11000 101 1	+ 110000 0101 -	- 001111 1010 +
K3.6	11000 011 1	+ 110000 1001 -	- 001111 0110 +
K3.7	11000 111 1	+ 110000 1110 0	- 001111 0001 0
K23.7	11101 111 1	- 111010 1000 0	+ 000101 0111 0
K27.7	11011 111 1	- 110110 1000 0	+ 001001 0111 0
K29.7	10111 111 1	- 101110 1000 0	+ 010001 0111 0
K30.7	01111 111 1	- 011110 1000 0	+ 100001 0111 0

FIG. 8

NAME	ABCDE FGH K	PRIMARY (6B) DR abcdei fghi DB	ALTERNATE DR abcdei fghi DB
K11.7	11010 111 1	+ 110100 1000 -	- 001011 0111 +
K13.7	10110 111 1	+ 101100 1000 -	- 010011 0111 +
K14.7	01110 111 1	+ 011100 1000 -	- 100011 0111 +
K19.7	11001 111 1	+ 110010 1000 -	- 001101 0111 +
K21.7	10101 111 1	+ 101010 1000 -	- 010101 0111 +
K22.7	01101 111 1	+ 011010 1000 -	- 100101 0111 +
K25.7	10011 111 1	+ 100110 1000 -	- 011001 0111 +
K26.7	01011 111 1	+ 010110 1000 -	- 101001 0111 +
K28.7	00111 111 1	+ 001110 1000 -	+ 110001 0111 +



FIG. 9A

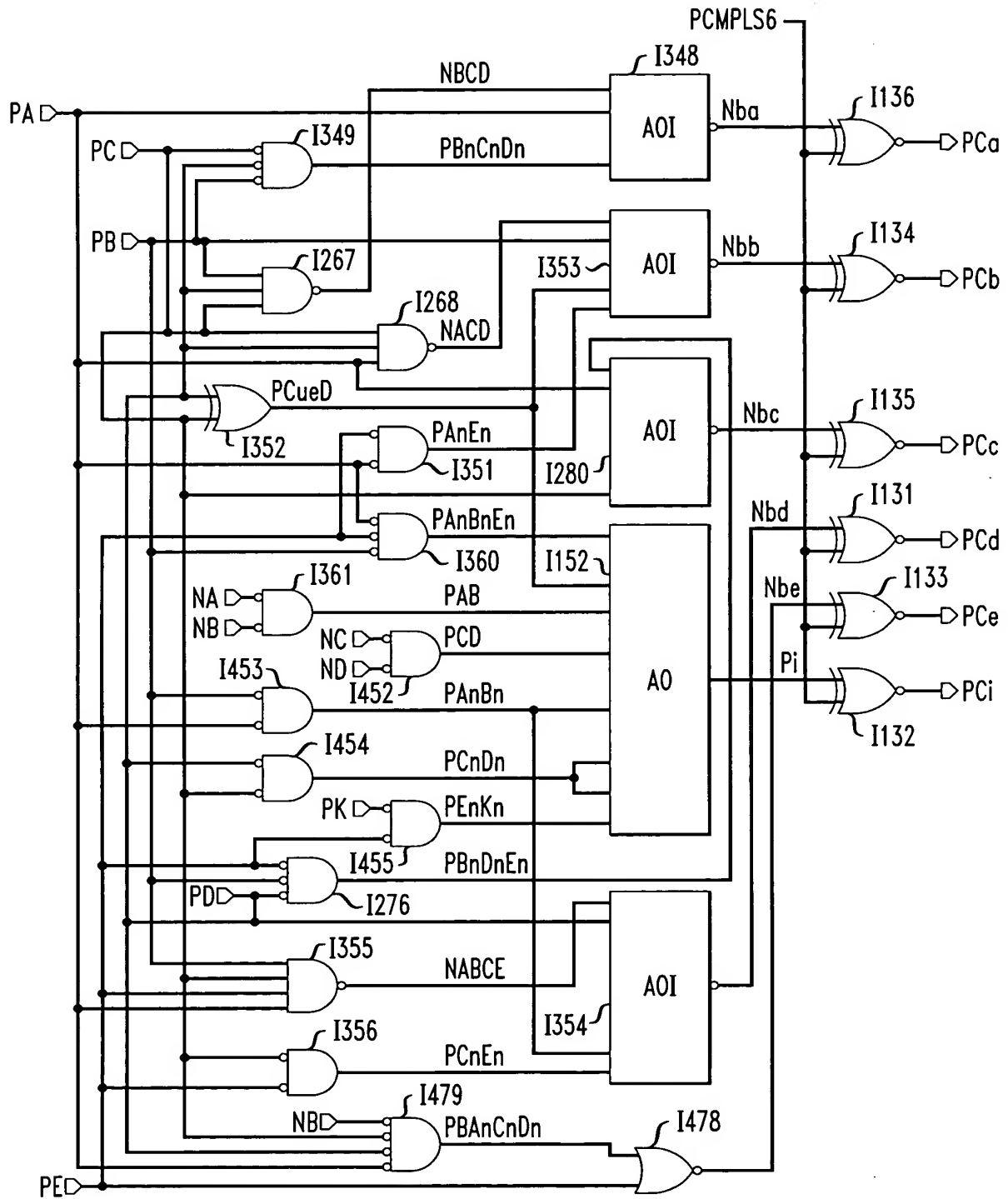




FIG. 9A cont.

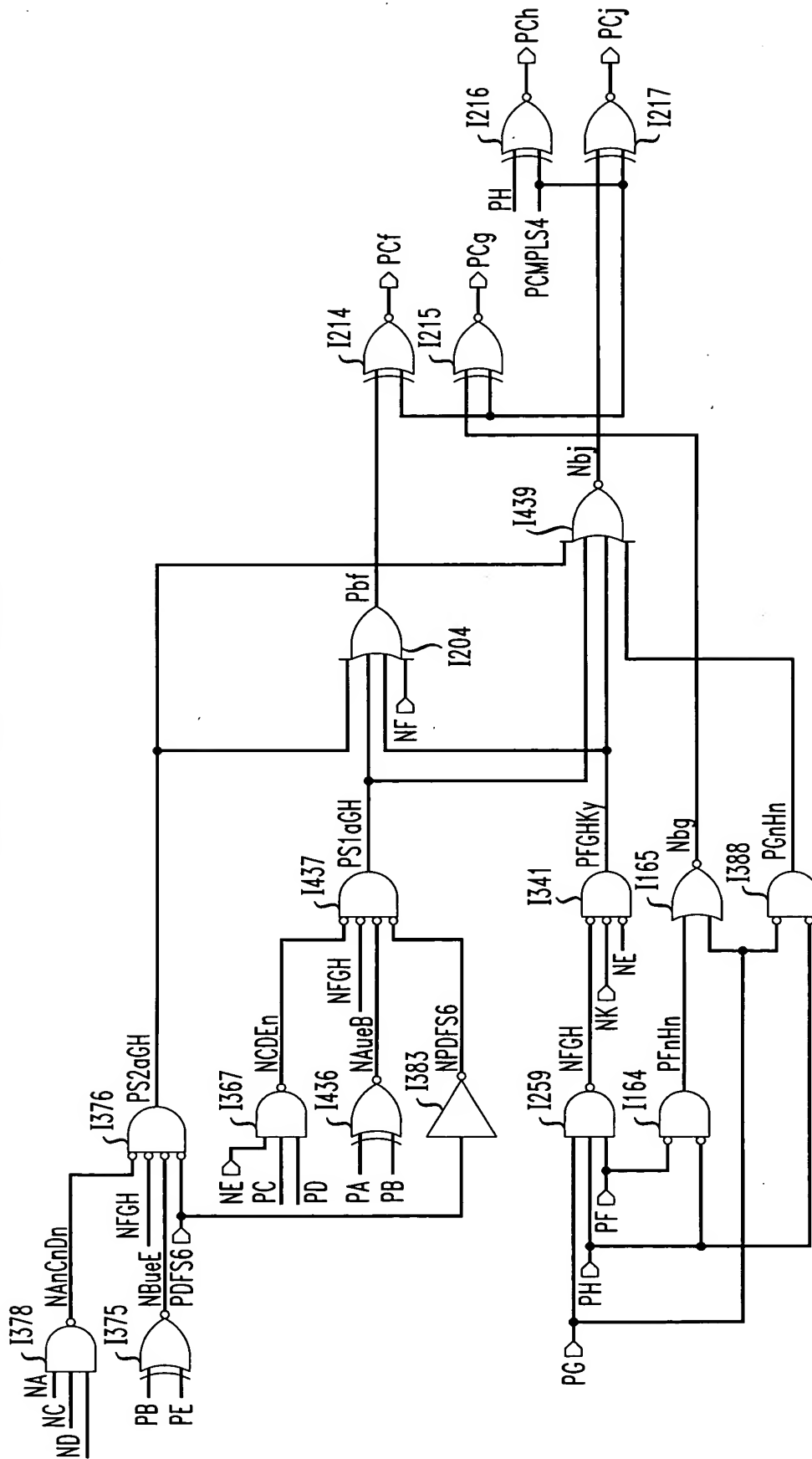


FIG. 9B

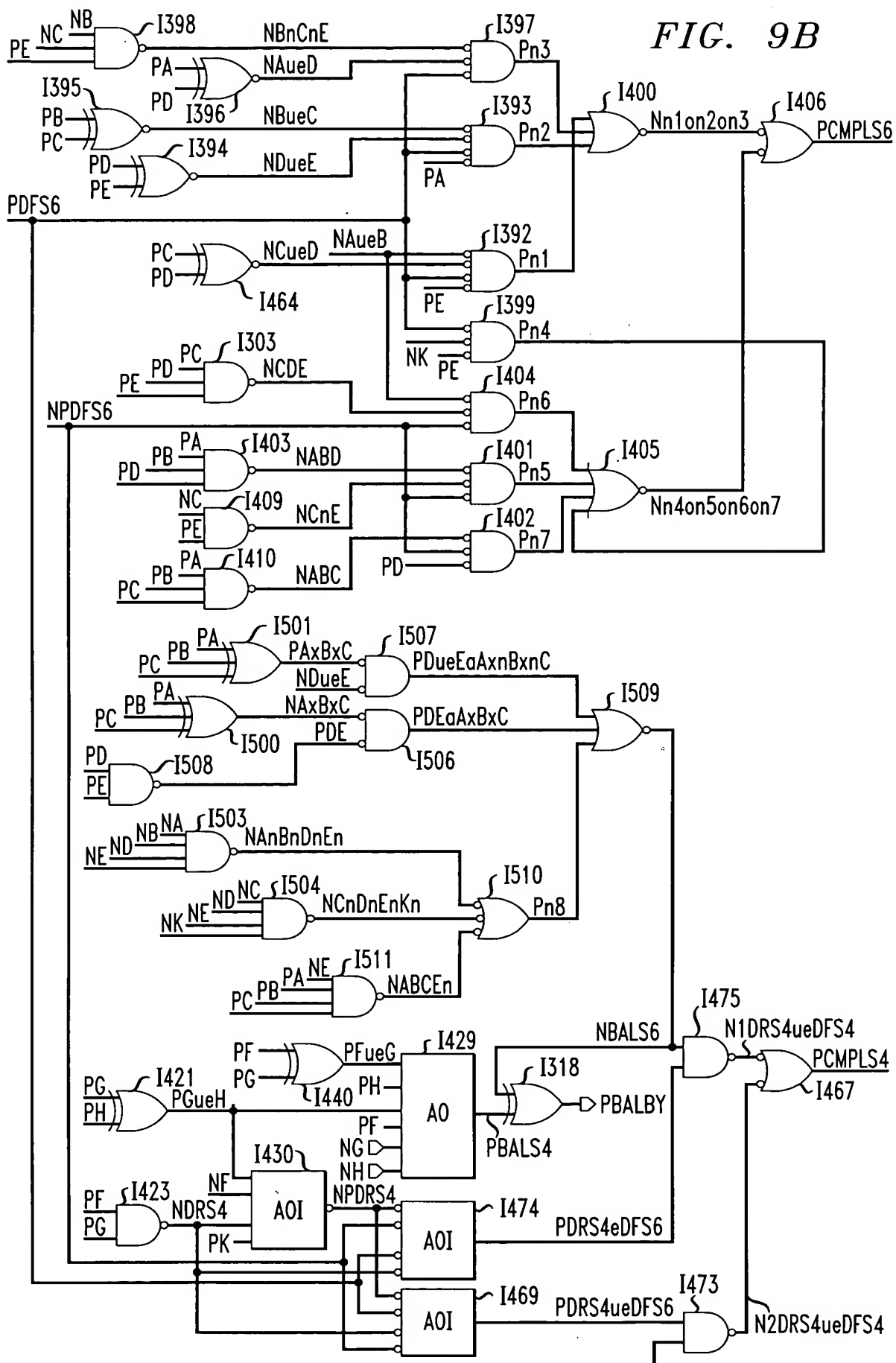


FIG. 9B cont.

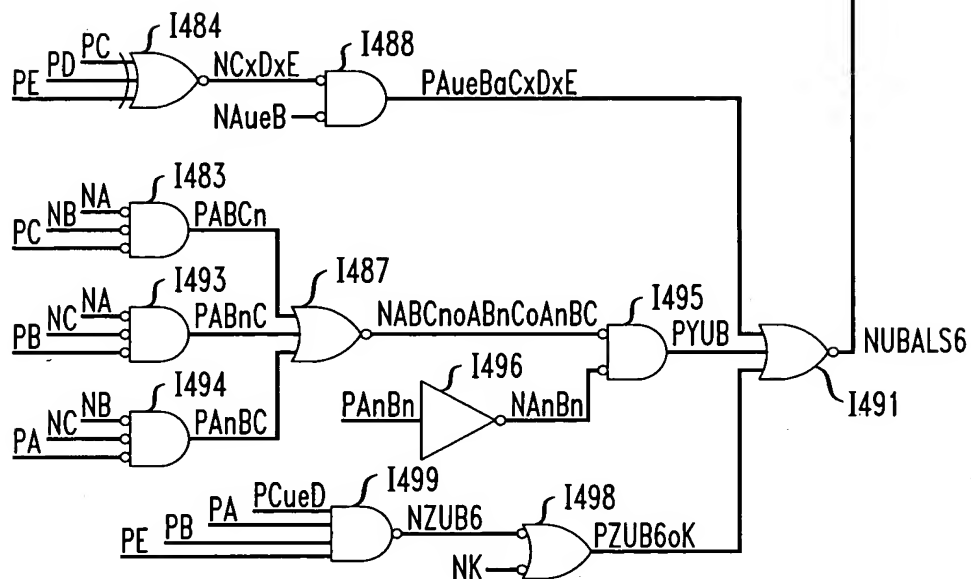


FIG. 9C

Pn1 = NDFS6aEnAueBaCueD
 Pn2 = NDFS6aAnBueCaDueE
 Pn3 = NDFS6aBnaCnaEaAueD
 Pn4 = NDFS6aKaEn
 Pn5 = PDFS6aAaBaCnaDaE
 Pn6 = PDFS6aCaDaEaAueB
 Pn7 = PDFS6aAaBaCaDn

FIG. 9B

FIG. 9B
cont.



FIG. 10

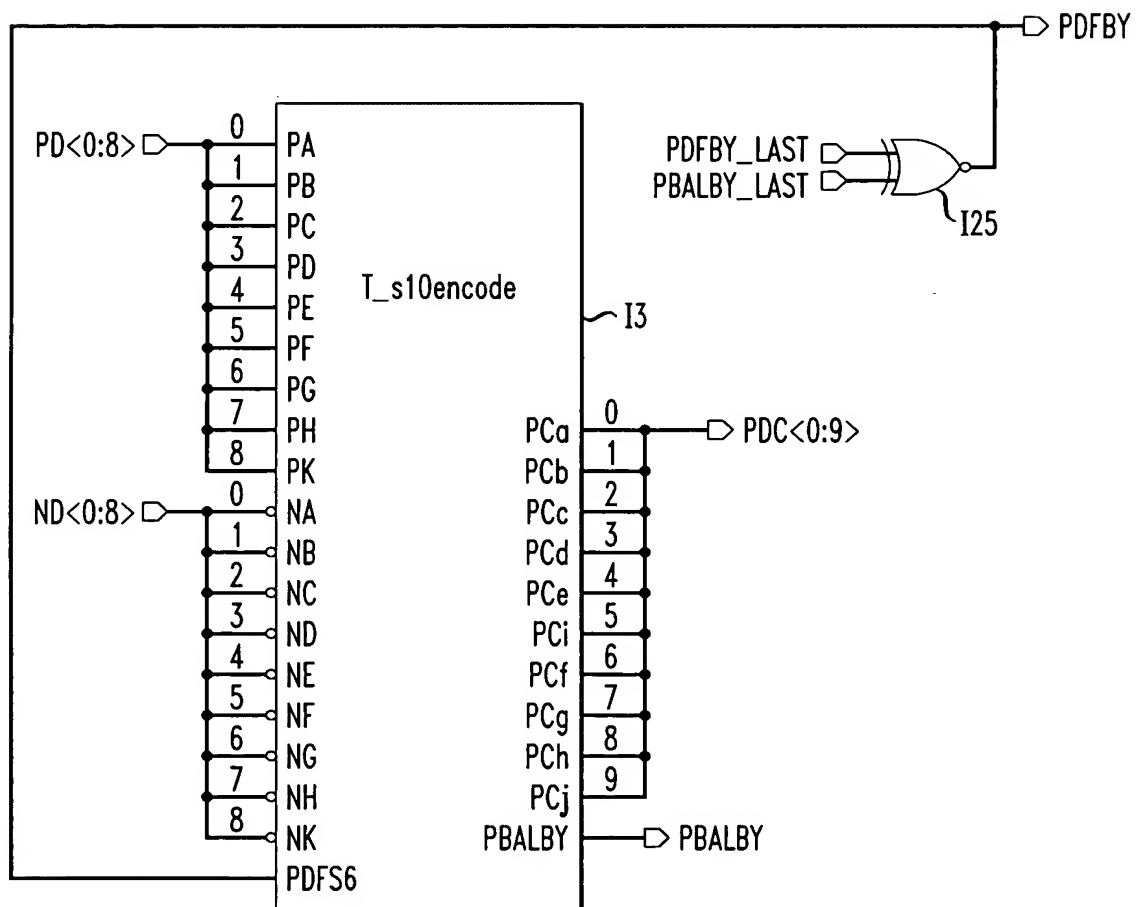




FIG. 11

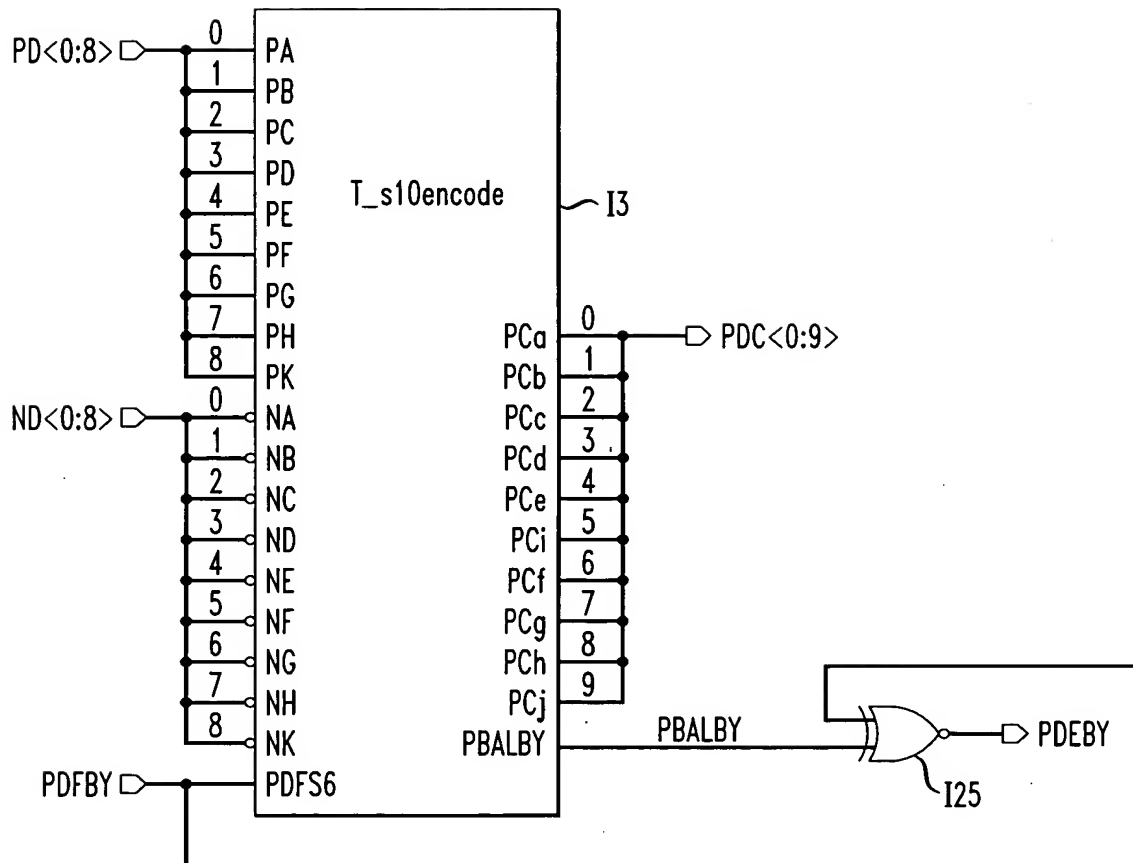
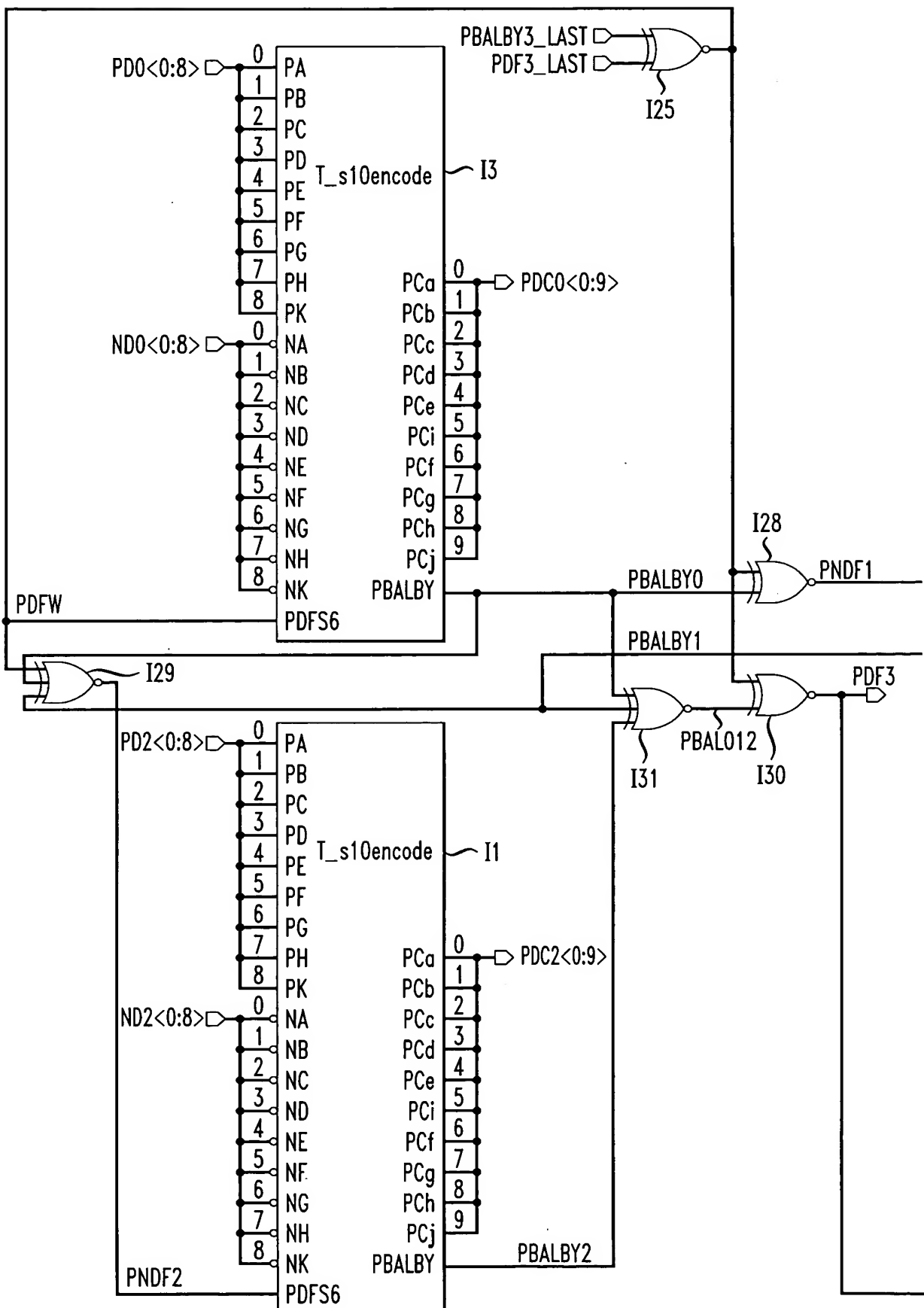


FIG. 12



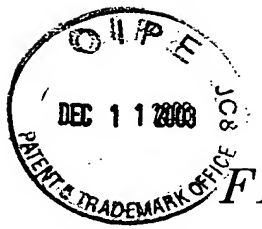


FIG. 12 cont.

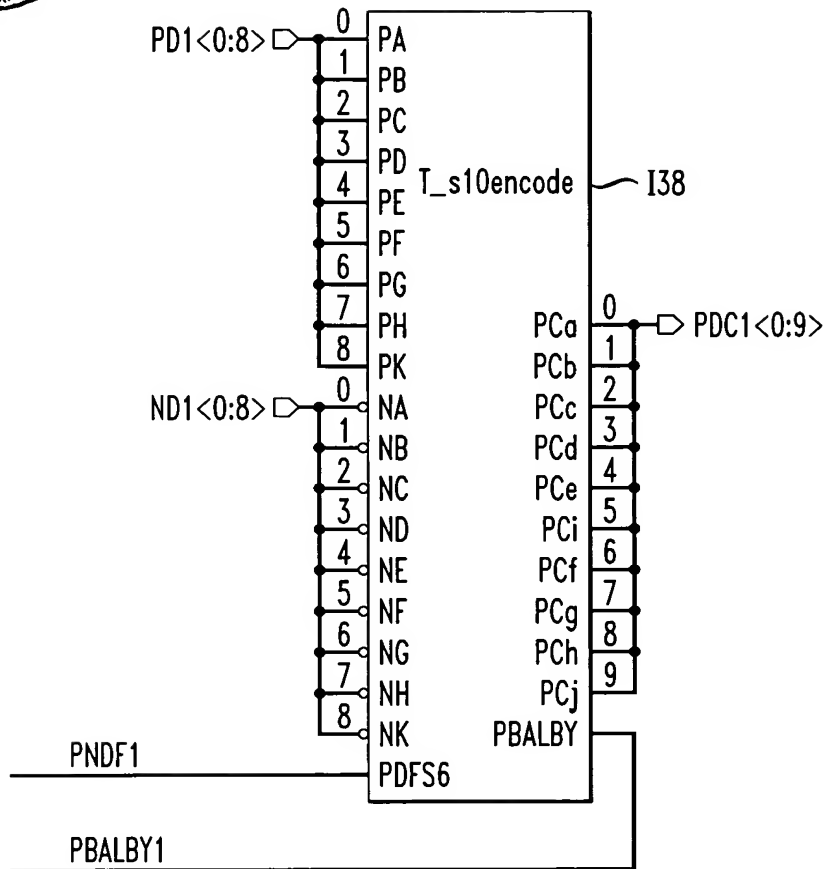


FIG. 12A

FIG. 12	FIG. 12 cont.
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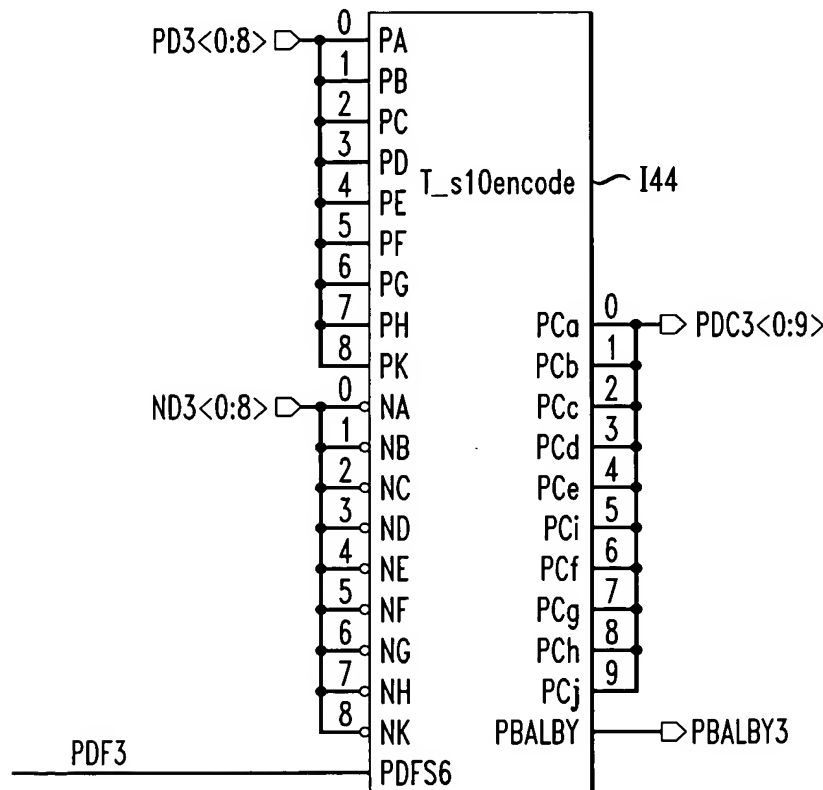
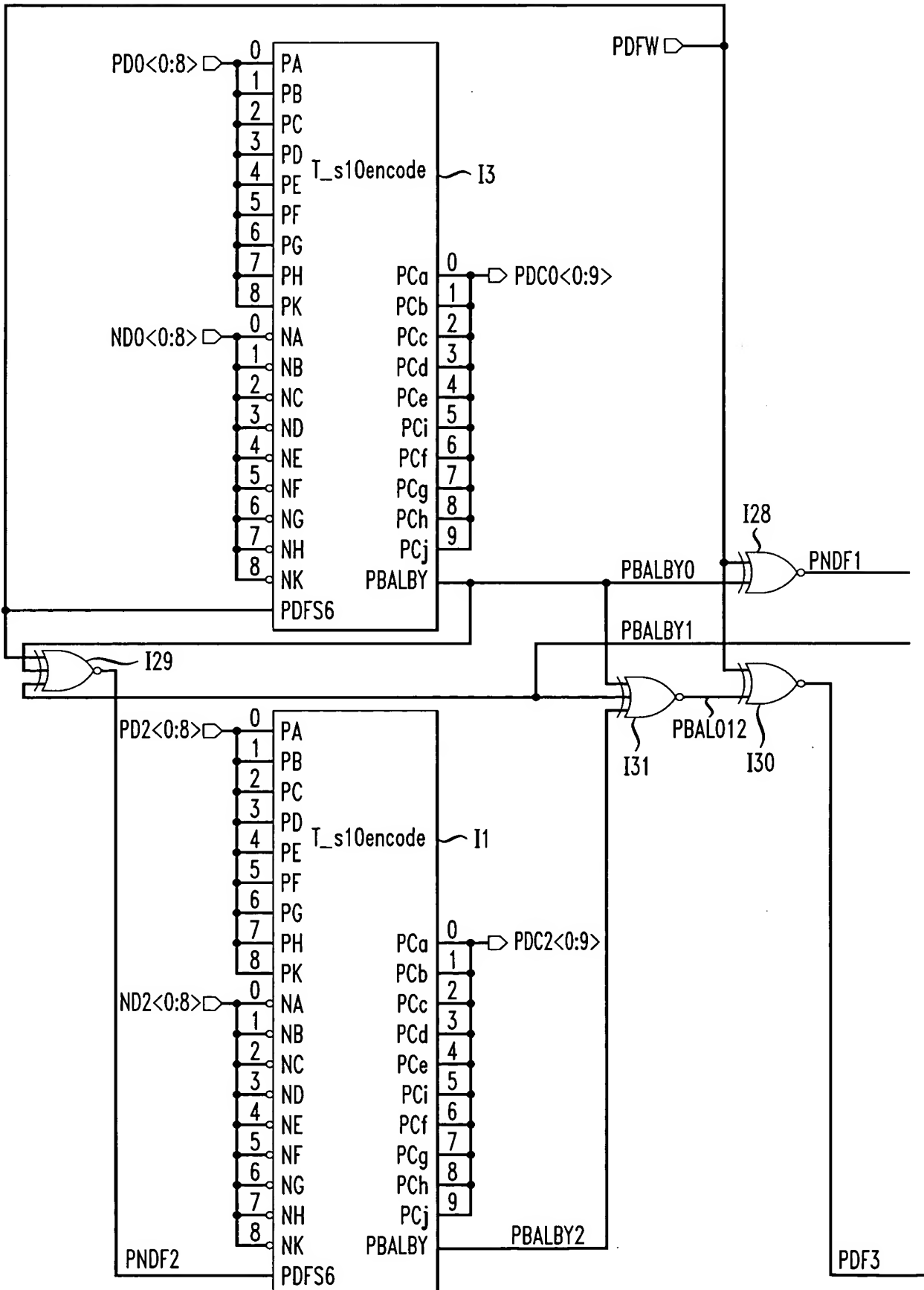




FIG. 13



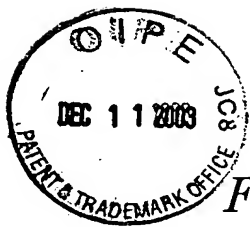


FIG. 13 cont.

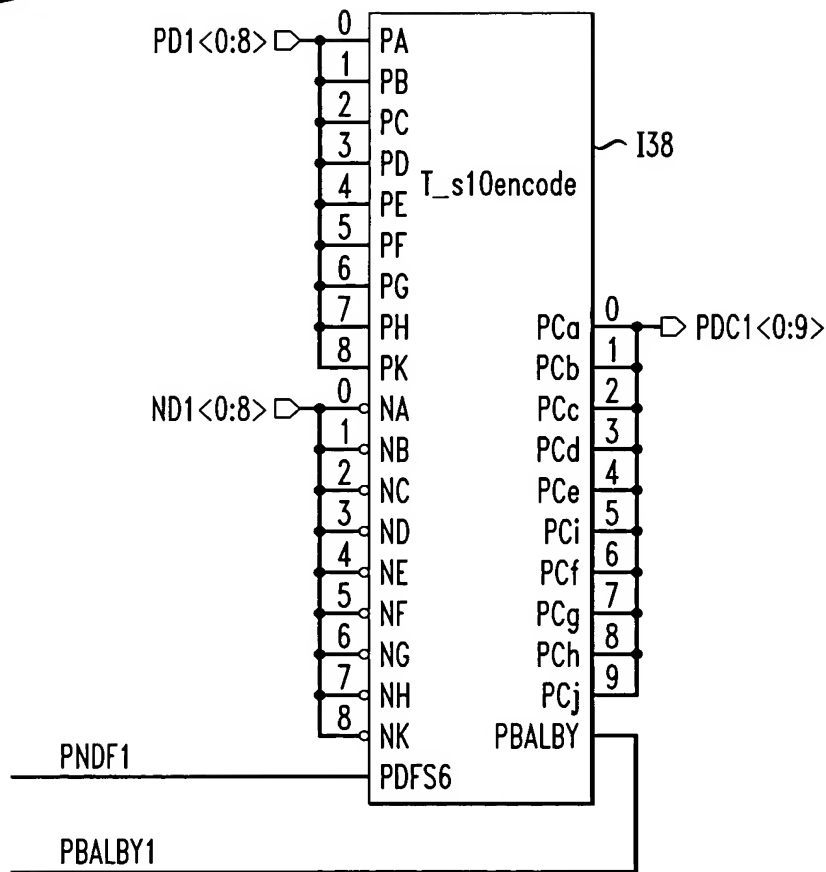


FIG. 13A

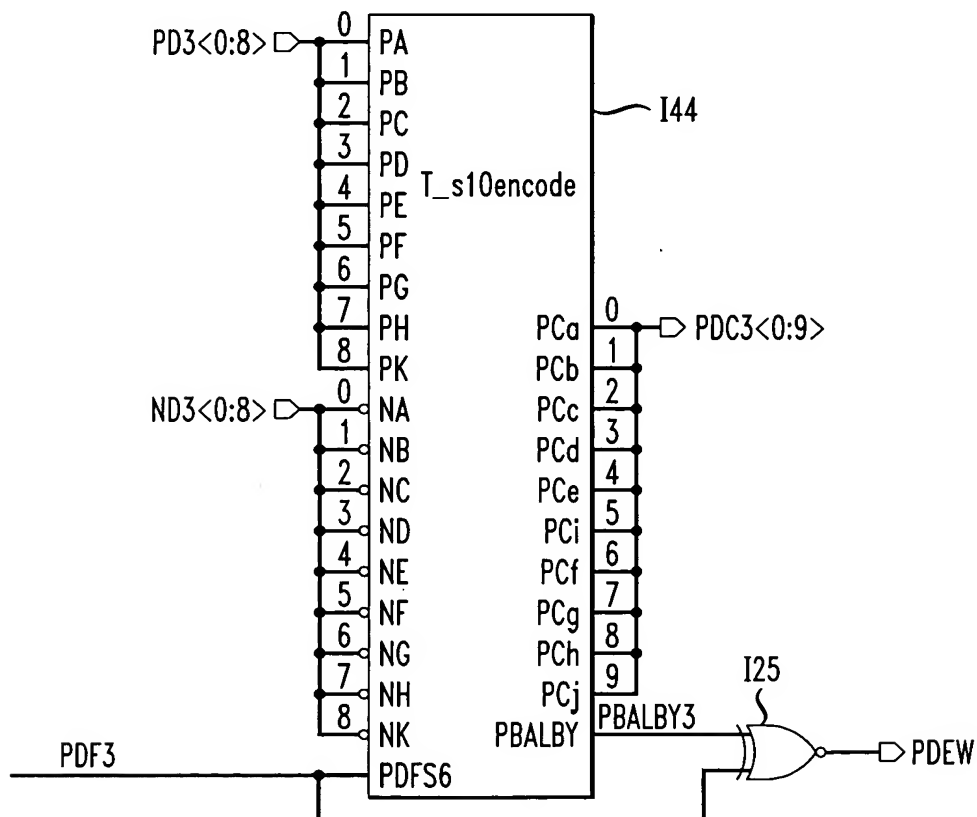
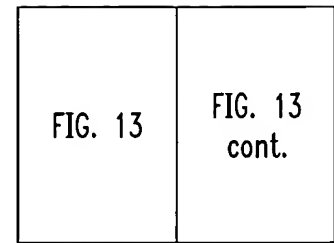




FIG. 14

NAME	abcdei	DECODING CLASS	ABCDE K	DR CLASS	DR	DU CLASS	DU
D0P	100101	b'i-(a#c)-(d#e)	<u>00000</u> 0		±		
D0P	100101	b'i-(a-c'-d-e')	00 <u>000</u> 0		±		
D1	101001	a-b'-c-d'-e'-i	10 <u>000</u> 0		±		
D2	010011	a'-b-c'-d'-e-i	01 <u>000</u> 0		±		
D3	110001		11 <u>000</u> 0		±		
D4	011001	a'-b-e'-i-(c#d)	<u>00100</u> 0		±		
D5P	101000		10100 0	PDRR6	+	NDUR6	-
D5A	010111	d-e-i	10100 0	NDRR6	-	PDUR6	+
D6P	011000		01100 0	PDRR6	+	NDUR6	-
D6A	100111	d-e-i	01100 0	NDRR6	-	PDUR6	+
D7P	111000		11100 0	NDRR6	-	NDUR6	-
D7A	000111	d-e-i	11100 0	PDRR6	+	PDUR6	+
D8	010101	a'-b-e'-i-(c#d)	<u>00010</u> 0		±		
D9P	100100		10010 0	PDRR6	+	NDUR6	-
D9A	011011	c-i-(a+b)-(d+e)	10010 0	NDRR6	-	PDUR6	+
D10P	010100		01010 0	PDRR6	+	NDUR6	-
D10A	101011	c-i-(a+b)-(d+e)	01010 0	NDRR6	-	PDUR6	+
D11	110100		11010 0		±		
D12P	001100		00110 0	PDRR6	+	NDUR6	-
D12A	110011	a-b-i-(c+d+e)	00110 0	NDRR6	-	PDUR6	+
D13	101100		10110 0		±		
D14	011100		01110 0		±		
D15P	001101	b'i-(a#c)-(d#e)	11110 0		±		
D15P	001101	a'-b'-c-i-(d#e)	<u>11110</u> 0		±		
D16	100011	b'i-(a#c)-(d#e)	<u>00001</u> 0		±		
D17P	100010		10001 0	PDRR6	+	NDUR6	-
D17A	011101	c-i-(a+b)-(d+e)	10001 0	NDRR6	-	PDUR6	+
D18P	010010		01001 0	PDRR6	+	NDUR6	-
D18A	101101	c-i-(a+b)-(d+e)	01001 0	NDRR6	-	PDUR6	+
D19	110010		11001 0		±		
D20P	001010		00101 0	PDRR6	+	NDUR6	-
D20A	110101	a-b-i-(c+d+e)	00101 0	NDRR6	-	PDUR6	+
D21	101010		10101 0		±		



FIG. 14 cont.

D22	011010		01101 0		±		
D/K23P	111010		11101 x	NDRR6	-	PDUR6	+
D/K23A	000101	$a' \cdot b' \cdot e' \cdot (c' + d')$	<u>11101</u> x	PDRR6	+	NDUR6	-
D24P	000110		00011 0	PDRR6	+	NDUR6	-
D24A	111001	$a \cdot b \cdot i \cdot (c + d + e)$	<u>00011</u> 0	NDRR6	-	PDUR6	+
D25	100110		10011 0		±		
D26	010110		01011 0		±		
D/K27P	110110		11011 x	NDRR6	-	PDUR6	+
D/K27A	001001	$a' \cdot b' \cdot e' \cdot (c' + d')$	<u>11011</u> x	PDRR6	+	NDUR6	-
D28	001110		00111 0		±		
D/K29P	101110		10111 x	NDRR6	-	PDUR6	+
D/K29A	010001	$c' \cdot d' \cdot e' \cdot (a' + b')$	<u>10111</u> x	PDRR6	+	NDUR6	-
D/K30P	011110		01111 x	NDRR6	-	PDUR6	+
D/K30A	100001	$c' \cdot d' \cdot e' \cdot (a' + b')$	<u>01111</u> x	PDRR6	+	NDUR6	-
D31P	001011	$b' \cdot i \cdot (a \neq c) \cdot (d \neq e)$	<u>11111</u> 0		±		
D31P	001011	$a' \cdot b' \cdot c \cdot i \cdot (d \neq e)$	<u>11111</u> 0		±		
D31P	001011	$b' \cdot i \cdot (a' \cdot c \cdot d' \cdot e)$	<u>11111</u> 0		±		
K3P	110000	$c' \cdot d' \cdot e' \cdot i'$	11000 <u>1</u>	PDRR6	+	NDUR6	-
K3A	001111	$d \cdot e \cdot i$	<u>11000</u> <u>1</u>	NDRR6	-	PDUR6	+

FIG. 14A

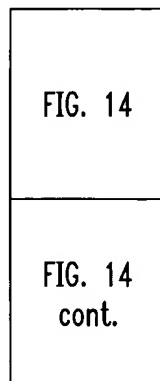


FIG. 15A

[illegible]



FIG. 15B cont.

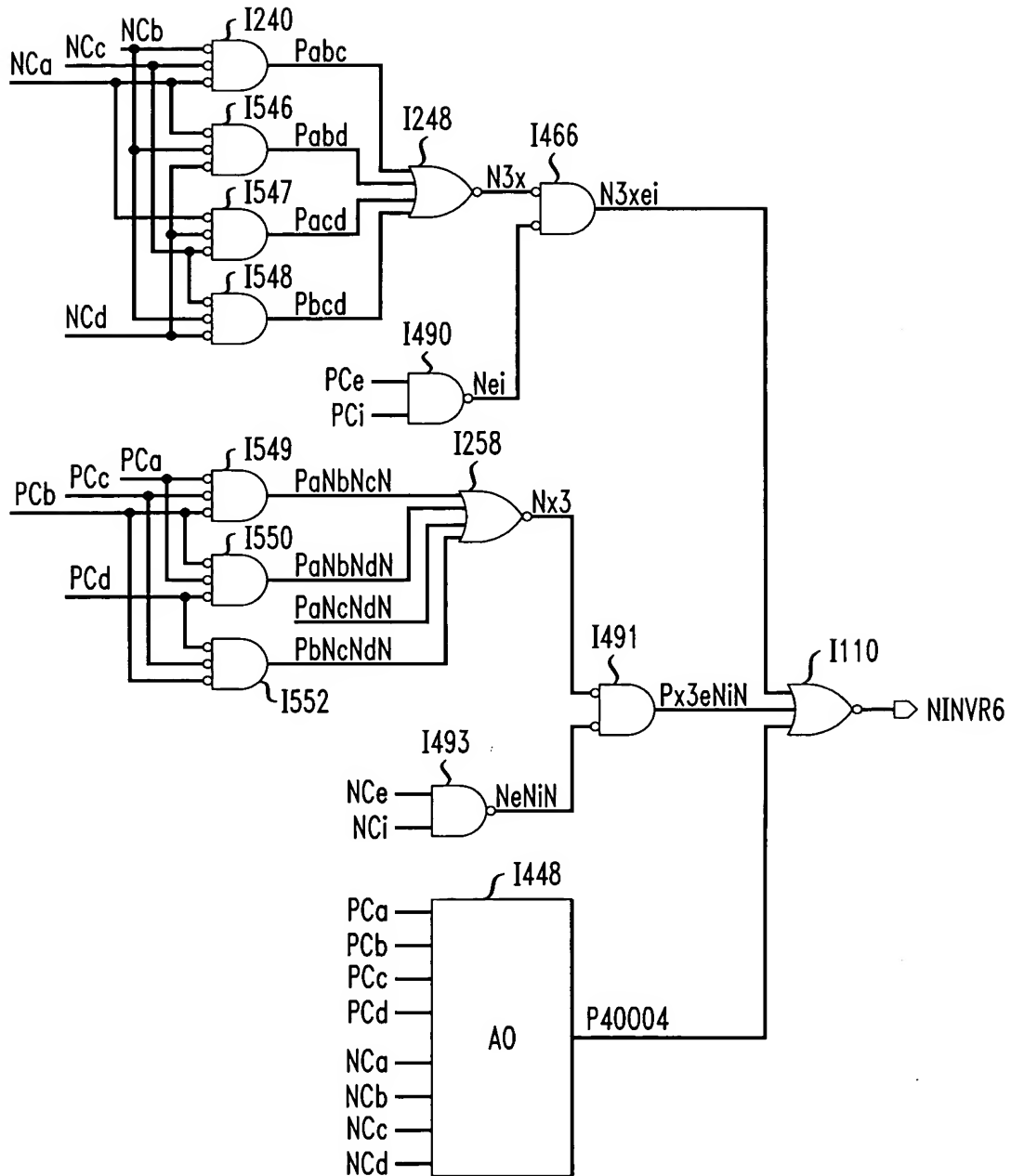




FIG. 16

NAME	fghj	DECODING CLASS	FGH K ^a	DR CLASS	DR	DU CLASS	DU
Dx/K3.0P	0101	m5	<u>000</u> x		±		
K3.0A	1010	m0	<u>000</u> 1				
Dx/K3.1P	1001		<u>100</u> x		±		
K3.1A	0110	m0, m0·(f·h)', m0	<u>100</u> 1				
Dx/K3.2P	0100		<u>010</u> x	PDR4	+		-
Dx/K3.2A	1011	m2, m5, g'·h·j	<u>010</u> x	NDR4	-		+
Dx/K3.3P	1100		<u>110</u> x	NDR4	-		-
Dx/K3.3A	0011	m2, m5, g'·h·j	<u>110</u> x	PDR4	+		+
Dx/K3.4P	0010		<u>001</u> x	PDR4	+		-
Dx/K3.4A	1101	m1, m5, m1 + m4	<u>001</u> x	NDR4	-		+
Dx/K3.5P	1010		<u>101</u> x		±		
K3.5A	0101	m0, m0·(f·h)', m0	<u>101</u> 1				
Dx/K3.6P	0110		<u>011</u> x		±		
K3.6A	1001	m0, m0·(f·h)', m0	<u>011</u> 1				
Dx/K3.7P	1110		<u>111</u> x	NDR4	-		+
Dx/K3.7A	0001	m1, m4, m1 + m4	<u>111</u> x	PDR4	+		-
Dx/Ky.7P	0111	m2	<u>111</u> x	NDR4	-		+
Dx/Ky.7A	1000	m4, m1 + m4	<u>111</u> x	PDR4	+		-

a-Ky.7 = (e≠i)·(i=g=h=j)

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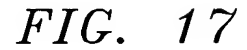




FIG. 18

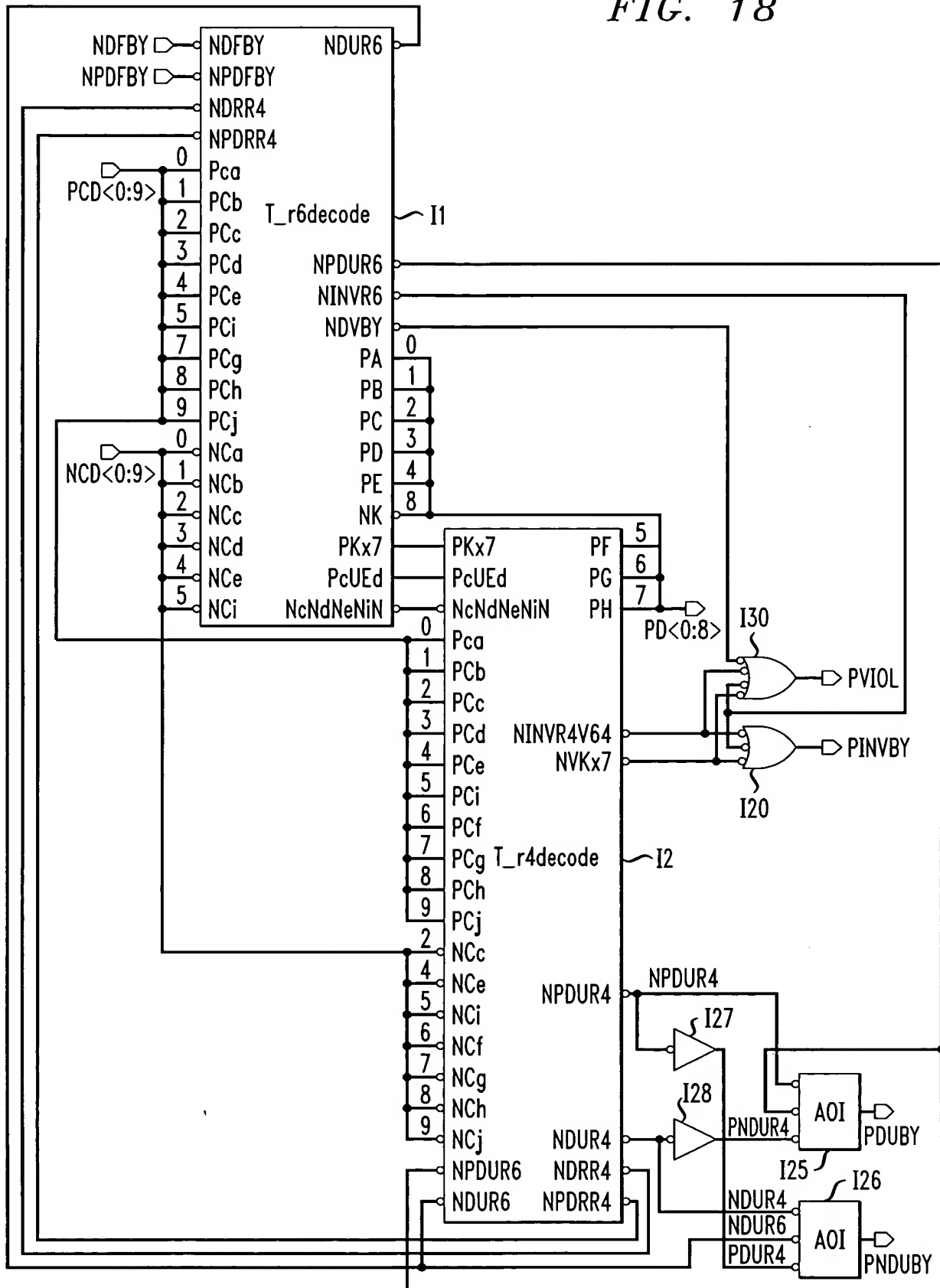


FIG. 19

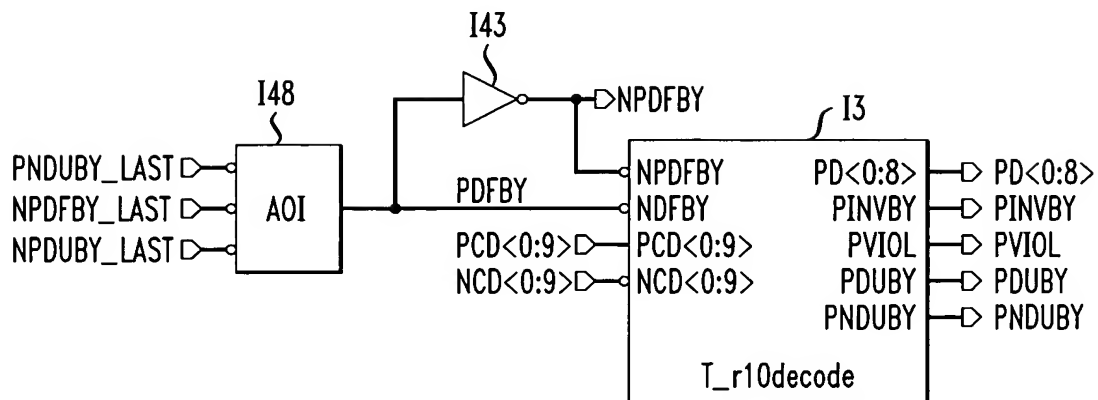
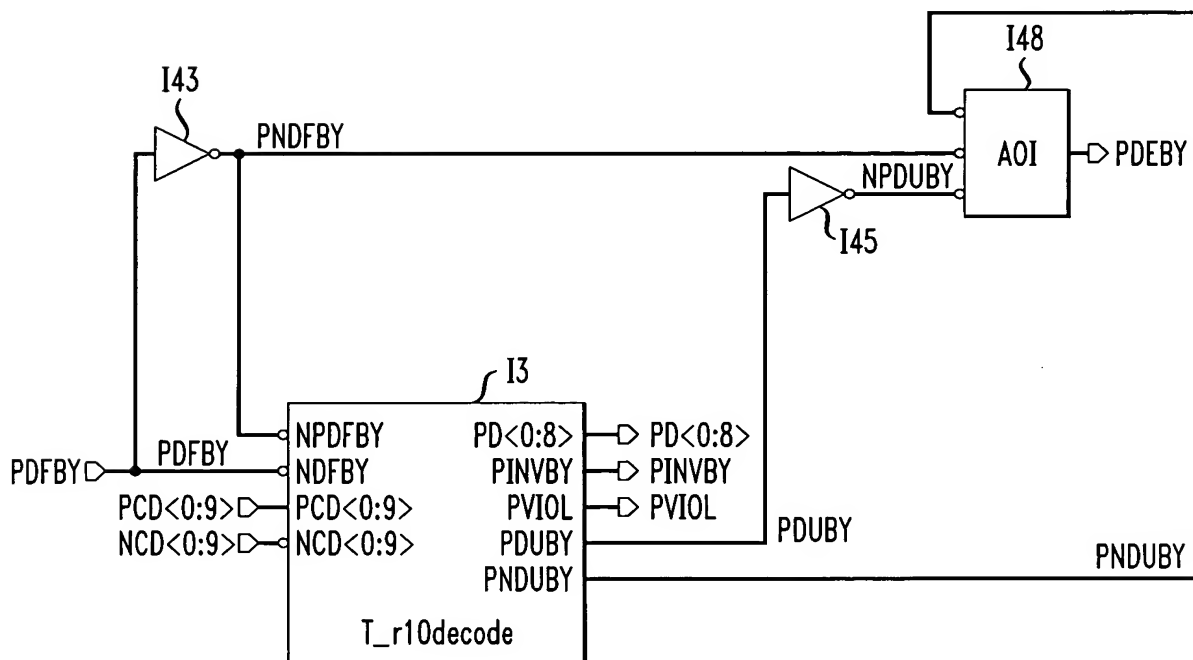


FIG. 20



The diagram illustrates the internal structure of the T_r10decode module. It consists of four main processing blocks, each receiving inputs from the left and producing outputs to the right. These blocks are interconnected with a series of logic gates (AND, OR, NOT) and inverters, which then feed into a final set of AOI and AO blocks.

Inputs to the T_r10decode blocks:

- NPDBY (0:9)
- NDBY (0:9)
- PCD (0:9)
- NCD (0:9)

Outputs from the T_r10decode blocks:

- PD36 (0:8)
- PINVBY (0)
- PVIOL (0)
- PNDUBY (0)

Internal Logic and Final Outputs:

- The outputs from the T_r10decode blocks are processed by a series of logic gates (AND, OR, NOT) and inverters.
- The final outputs are PDFBY0, PDFBY1, PDFBY2, and PDFBY3.

Legend:

- PD36 (0:35)
- PINVBY (0:3)
- PVIOL (0:3)



FIG. 22

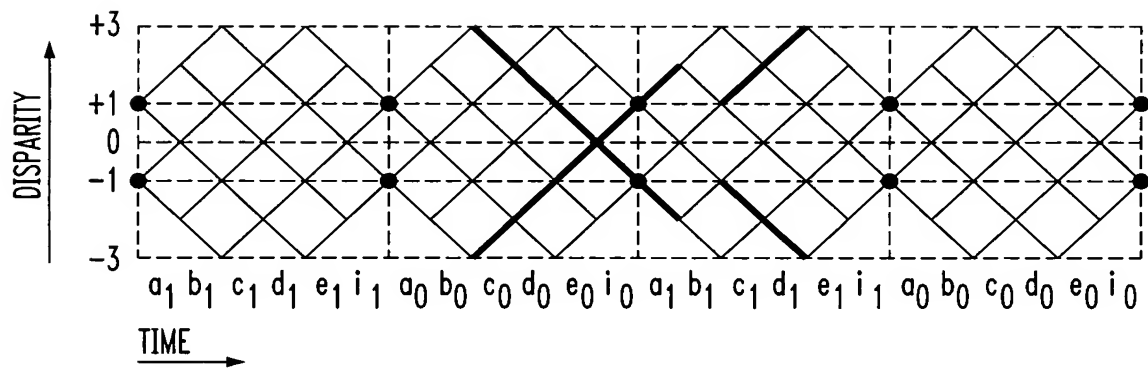




FIG. 23

NAME	ABCDE K	INVERTED BITS	PRIMARY abcdei	ALTERNATE abcdei	DR CLASS	DR	DB CLASS	DB
K0	00000 1	ADI	100101	011010	NDRS6	-	(A·B)·C·D·E'	0
K1	10000 1	CI	101001	010110	NDRS6	-	(A·B)·C·D·E'	0
K2	01000 1	EI	010011	101100	NDRS6	-	(A·B)·C·D·E'	0
K3	11000 1		110000	001111	PDRS6	+		-
K4	00100 1	BI	011001	100110	NDRS6	-	ZB6	0
D/K5	10100 x		101000	010111	PDRS6	+		-
D/K6	01100 x		011000	100111	PDRS6	+		-
D/K7	11100 x		111000	000111	NDRS6	-	ZB6	0
K8	00010 1	BI	010101	101010	NDRS6	-	XB6	0
D/K9	10010 x		100100	011011	PDRS6	+		-
D/K10	01010 x		010100	101011	PDRS6	+		-
K11	11010 1		110100	001011	NDRS6	-	XB6	0
D/K12	00110 x		001100	110011	PDRS6	+		-
K13	10110 1		101100	010011	NDRS6	-	XB6	0
K14	01110 1		011100	100011	NDRS6	-	XB6	0
K15	11110 1		111100	000011	NDRS6	-		+
K16	00001 1	AI	100011	011100	NDRS6	-	XB6	0
D/K17	10001 x		100010	011101	PDRS6	+		-
D/K18	01001 x		010010	101101	PDRS6	+		-
K19	11001 1		110010	001101	NDRS6	-	XB6	0
D/K20	00101 x		001010	110101	PDRS6	+		-
K21	10101 1		101010	010101	NDRS6	-	XB6	0
K22	01101 1		011010	100101	NDRS6	-	XB6	0
D/K23	11101 x		111010	000101	NDRS6	-		+
D/K24	00011 x		000110	111001	PDRS6	+		-
K25	10011 1		100110	011001	NDRS6	-	YB6	0
K26	01011 1		010110	101001	NDRS6	-	YB6	0
D/K27	11011 x		110110	001001	NDRS6	-		+
D/K29	10111 x		101110	010001	NDRS6	-		+
D/K30	01111 x		011110	100001	NDRS6	-		+

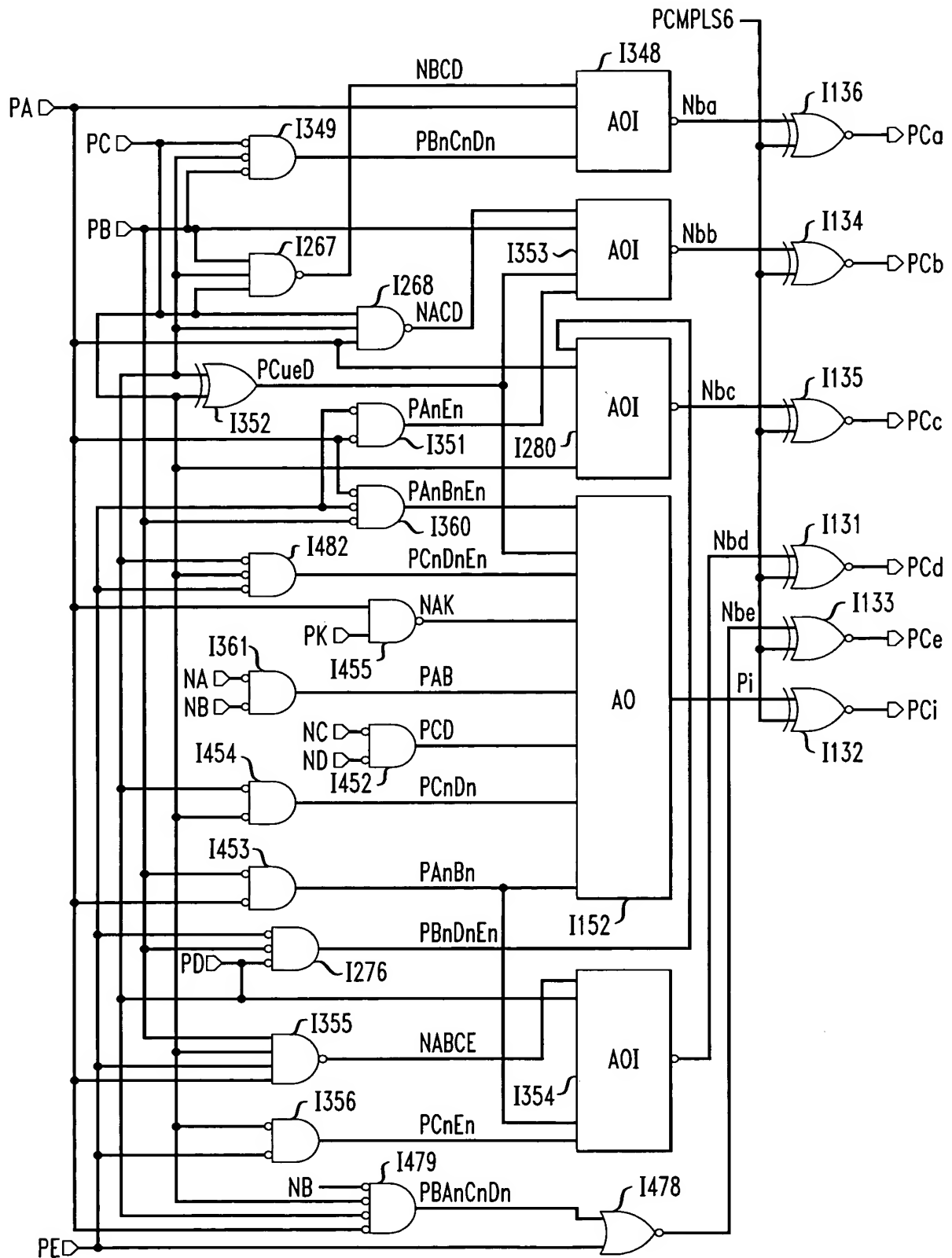


FIG. 24

NAME	ABCDE K	INVERTED BITS	PRIMARY abcdei	ALTERNATE abcdei	DR CLASS	DR	DB CLASS	DB
K2	01000 1	EI	010011	101100	NDRS6	-	A'C'E'K	0
K3	11000 1		110000	001111	PDRS6	+		-
D/K5	10100 x		101000	010111	PDRS6	+		-
D/K6	01100 x		011000	100111	PDRS6	+		-
D/K7	11100 x		111000	000111	NDRS6	-	ZB6	0
D/K9	10010 x		100100	011011	PDRS6	+		-
D/K12	00110 x		001100	110011	PDRS6	+		-
D/K17	10001 x		100010	011101	PDRS6	+		-
D/K18	01001 x		010010	101101	PDRS6	+		-
D/K20	00101 x		001010	110101	PDRS6	+		-
D/K23	11101 x		111010	000101	NDRS6	-		+
D/K24	00011 x		000110	111001	PDRS6	+		-
D/K27	11011 x		110110	001001	NDRS6	-		+
D/K29	10111 x		101110	010001	NDRS6	-		+
D/K30	01111 x		011110	100001	NDRS6	-		+



FIG. 25A



Pn1 = NDFS6aEnAueBaCueD
Pn2 = NDFS6aAnBueCaDueE
Pn3 = NDFS6aBnaCnaEaAueD
Pn4 = NDFS6aKABCnDnEn
Pn5 = PDFS6aAaBaCnaDaE
Pn6 = PDFS6aCaDaEaAueB
Pn7 = PDFS6aAaBaCaDn
Pn8 = PDFS6aAnaKaCnaEn

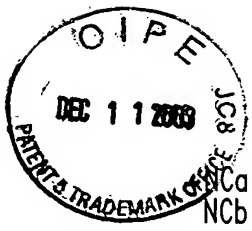


FIG. 26A

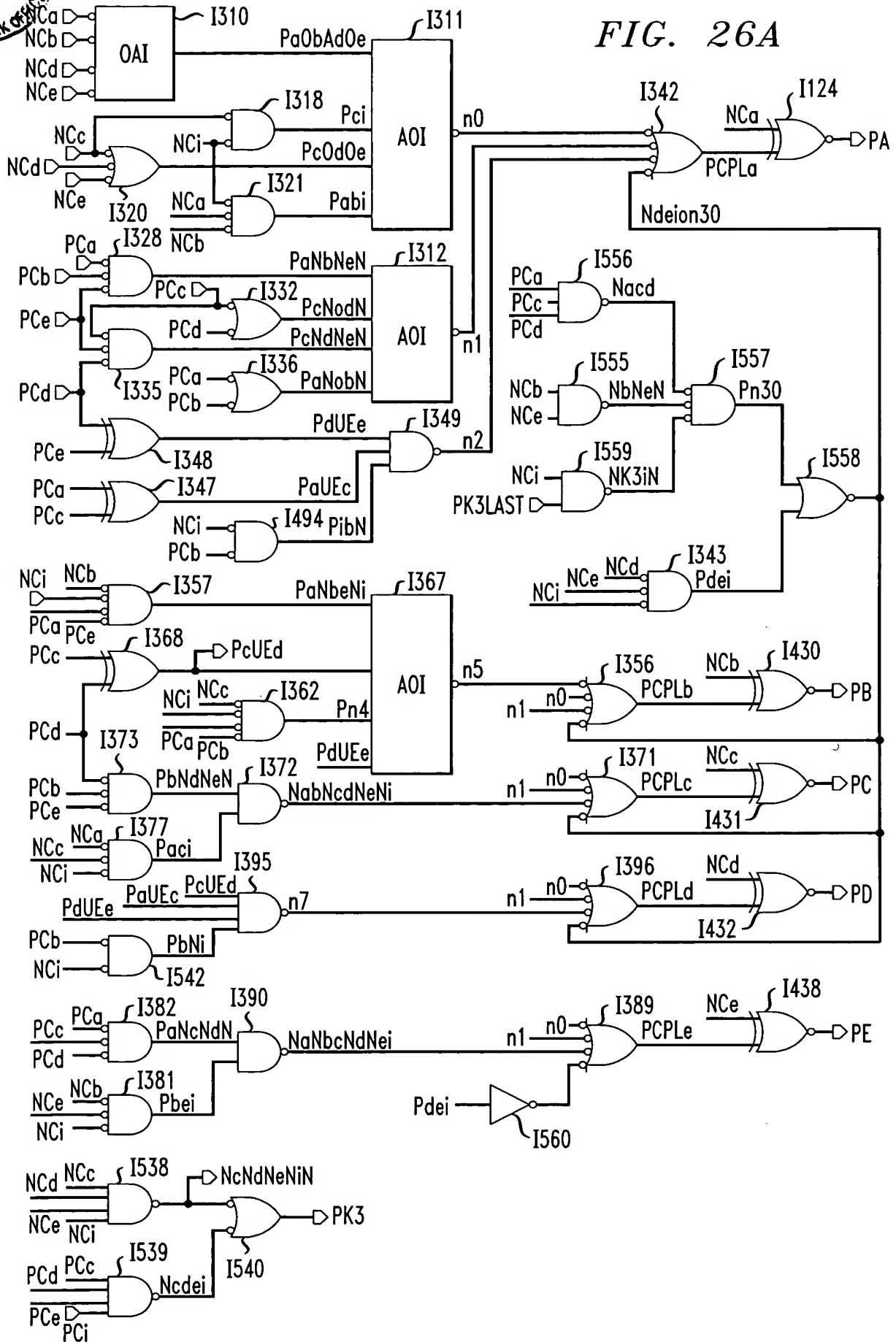


FIG. 26B

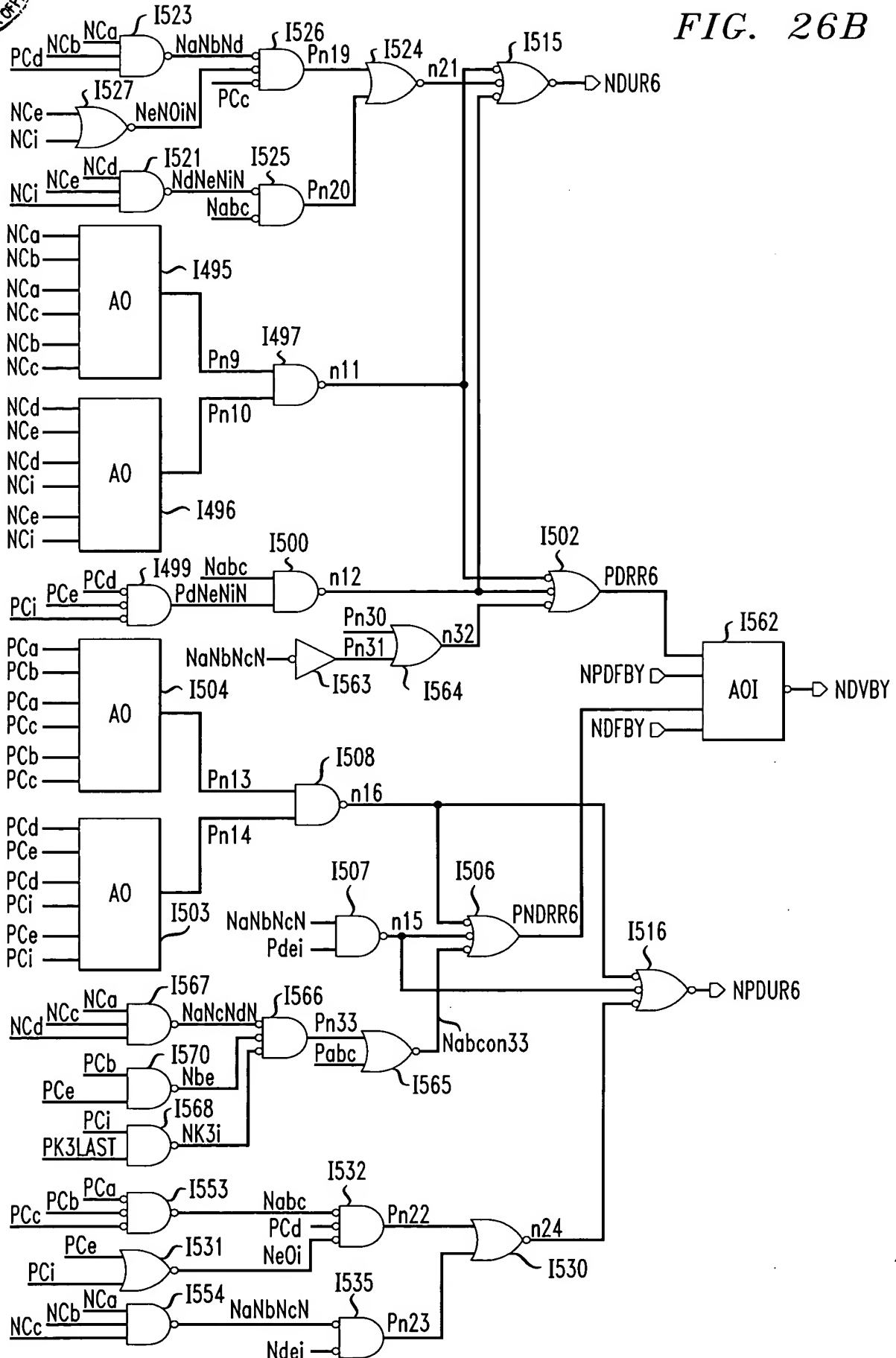




FIG. 26B cont.

